

ORIGINAL

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.**

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JUN 26 2002

In re:

Amendment of Section 73.622
Table of Allotments DTV
Broadcast Stations
Roswell, New Mexico

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MM Docket No.

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

To: Chief, Allocations Branch
Policy and Rules Division

PETITION FOR RULEMAKING

Eastern New Mexico University ("ENMU"), by its counsel and pursuant to Section 1.420 of the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to allot Channel *31 as a new DTV channel at Roswell, New Mexico, and to reserve it for noncommercial educational use. Such an allotment would serve the public interest by providing the city of Roswell with its first local noncommercial educational television channel and the surrounding areas with high quality public television programming.¹ ENMU commits to apply for DTV Channel *31, if allotted and reserved for noncommercial use.

Background

ENMU is a public institution of higher education in the state of New Mexico. In furtherance of its educational mandate, ENMU offers programs at its Portales, New Mexico campus, and also by interactive distance education, public broadcast television, a university center in Ruidoso, New Mexico, and a branch/community college in Roswell, New Mexico.

¹ The FCC allotted three commercial DTV channels at Roswell, New Mexico.

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ENMU operates a Broadcast Center which houses three 100,000 watt stations: KENW(TV) and KENW-FM in Portales, and KMTH(FM), Maljamar, New Mexico. ENMU also operates a network of TV translator stations which rebroadcast the signal of Station KENW-TV in order to extend its programming throughout the eastern portion of the state of New Mexico. In addition, ENMU offers Instructional Television Fixed Service, providing college level classes via closed-circuit cable TV to locations in Clovis, Cannon Air Force Base, Hobbs, Roswell, and Ruidoso.

ENMU's noncommercial educational television and radio network provides high quality educational, informational and cultural programming, including children's programming, to the eastern regions of New Mexico. ENMU has been providing public TV service since 1974. ENMU now hopes to further its educational mission by providing the only noncommercial educational TV programming service based in the Roswell area. Most importantly, the addition of the Roswell DTV station allotment proposed herein would eliminate noncommercial educational station white area in portions of New Mexico by providing the first noncommercial educational TV service to 15,233 persons and the second noncommercial educational TV service to 75,748 persons. *See* Engineering Statement, page 2, DTV threshold contour figures.

In support of this petition, ENMU submits the following:

The Allotment of DTV Channel *31 to Roswell, New Mexico Satisfies Technical and Regulatory Requirements

The present proposal satisfies the minimum geographic spacing requirements with regard to all other DTV stations, DTV allotments, and analog TV stations. *See* Engineering Statement. The reference coordinates for the proposed site are N. 33°-24'-05"; W. 104°-22'-45" (NAD27).

In addition, as the attached engineering exhibit demonstrates, this request is in compliance with the community coverage requirements of Section 73.625(a), assuming a power/height combination of no more than 1,000 kw/365 m HAAT. Accordingly, the allotment

of DTV Channel *31 at Roswell complies with the requirements of Section 73.623 of the Commission's Rules.

Moreover, this proposal complies with Section 73.622(a) of the Commission's Rules with respect to the initiation of a rulemaking proceeding to add an unoccupied DTV channel to the Table of Allotments and to reserve that channel for noncommercial educational use only. This allotment would provide a first or second noncommercial educational TV service to more than 75,000 persons, over 95 percent of the population within the proposed allotment's Grade B contour. *See* Engineering Statement, page 2.

Allotment of DTV Channel *31 to Roswell, New Mexico Would Provide the Roswell Area with a Valuable Source of Noncommercial Educational Programming

At present, there is no noncommercial educational DTV allotment for Roswell, New Mexico, a city of 45,293 persons and the fifth most populated city in New Mexico². Thus, the allotment of DTV Channel *31 to Roswell would provide the city with its only noncommercial educational digital television facility. Moreover, as demonstrated above, the new DTV allotment in Roswell would reduce noncommercial educational television white area, in furtherance of the Congressional mandate in Section 396 of the Communications Act.³

The Commission recognizes the value of local programming, especially in noncommercial, educational broadcasting. *See, e.g., Educational TV Assignment at Terre Haute, Indiana*, 19 RR 2d 1850, 1853 (1970) ("We have repeatedly announced our policy to forward local programming in the broadcast services. Local programming is essential particularly in the

² *See* 2000 U.S. Census <<http://www.census.gov/>>.

³ "It is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunications services through all appropriate available telecommunications distribution technologies." 47 U.S.C. § 396(a)(9).

field of education in that local programming can most effectively deal with the specific problems, needs, and interests in the community being served.”)

DTV Channel *31 at Roswell, New Mexico, Should Be Reserved for Noncommercial, Educational Use

The purpose of this petition is to allot a channel, for which ENMU intends to apply, to provide Roswell with its first noncommercial educational DTV channel. Reservation of Channel *31 for noncommercial educational use would make possible the enhanced provision of noncommercial and educational programs in the area. Moreover, in accordance with the requirements of Section 73.622(a), the proposed allotment would provide a first noncommercial educational service to 15,233 persons and a second noncommercial educational service to 75,748 persons.

Conclusion

For all of these reasons, ENMU requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to allot DTV Channel *31 to Roswell, New Mexico, and to reserve it for noncommercial educational use.

Respectfully submitted,

EASTERN NEW MEXICO UNIVERSITY

By: Barry Persh
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Margaret L. Miller
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June 26, 2002

**Regents of Eastern
New Mexico University**

**Engineering Exhibit
in Support of Petition for Rulemaking
for New Noncommercial
DTV Channel 31 Allotment for
Roswell, New Mexico**

June 17, 2002

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**Petition for Rulemaking • New Noncommercial DTV Channel 31
Roswell, New Mexico**

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained by Regents of Eastern New Mexico University, licensee of TV Station KENW, NTSC Channel 3, Portales, New Mexico, and permittee of Station KENW-DT, DTV Channel 32, Portales, New Mexico, to prepare an engineering exhibit in support of a Petition for Rulemaking for an entirely new noncommercial DTV Channel 31 allotment for Roswell, New Mexico.

U.S. Domestic Spacing Conditions

As shown by the table in the attached Figure 1, a new noncommercial full-service DTV allotment could be created for Roswell, New Mexico, at 33° 24' 05" N, 104° 22' 45" W, NAD27, that would meet all spacing requirements except to the KENW-DT allotment. However, as shown in the attached Figure 2, the KENW-DT construction permit specifies a site 86.2 kilometers northeast of the KENW-DT allotment site, known as the "Midway" site, which would be fully spaced to the proposed Roswell DTV Channel 31 site. Since no KENW-DT operation will occur from the allotment coordinates (*i.e.*, from the KENW-TV tower), but rather only from the Midway site, KENW-DT would not object to this single short-spacing that would be created by allotment of DTV Channel 31 to Roswell. If the Commission finds that waiver of Section 73.623(d)(2) is appropriate, the Regents of Eastern New Mexico University have indicated that they would then submit an application for construction permit for the Roswell DTV Channel 31 allotment. It is noted that presently Roswell has three commercial DTV channels allotted to it (DTV Channels 28c, 38, and 41), but no noncommercial DTV channels.

Mexican Spacings

The proposed site is 263.7 kilometers from the U.S.-Mexico border. Since this is within 275 kilometers of the Mexican border, it is therefore subject to the U.S.-Mexico DTV Memorandum of Understanding ("MOU"). However, as shown by the attached Figure 3A, DTV Channel 31 at the proposed coordinates would be fully spaced to all Mexican NTSC allotments. As shown by Figure 3B, DTV Channel 31 at the proposed coordinates would also be fully spaced to all Mexican DTV stations and allotments. Therefore, there would be no basis for the Government of Mexico to object to a new DTV Channel 31 at Roswell.

Coverage of Roswell

As shown by the attached Figure 4, a maximum power (1,000 kW effective radiated power ("ERP")) omnidirectional DTV station with an effective height of 365 meters would completely

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encompass Roswell within its F(50,90) 47.4 dBu dipole-adjusted City Grade contour, thus meeting the requirement of Section 73.623(d)(1) of the FCC Rules. An OET-69 style coverage study for the proposed allotment, Figure 5, shows a terrain-limited, interference-limited area of 31,384 square kilometers and 74,668 persons (intentionally still 1990 Census); these figures are therefore proposed for the “baseline” area and population for the proposed Roswell DTV Channel 31 allotment.

NonCommercial Service

As shown by the attached Figure 6, Roswell is presently within the predicted noncommercial Grade B contour of just KENW. Therefore, the proposed allotment would represent Roswell’s second noncommercial service, because Roswell would be outside of the DTV threshold contour of the permitted KENW-DT facilities, as shown by the attached Figure 7. Thus, fully 100% of the 74.9-square-kilometer Roswell city area and 100% of the 45,293-person Roswell city population would receive a second noncommercial television service. The proposed allotment would also represent Roswell’s first *local* noncommercial television service.

The attached Figure 8 shows the contour overlap for the proposed DTV Channel 31 noncommercial allotment with the KENW Grade B contours and with the KENW-DT DTV Threshold contour. Areas and populations (2000 Census) would be as follows:

<u>Service Contour(s)</u>	<u>Area</u>	<u>Population</u>
Total DTV Ch 31 Threshold	34,094 sq. km	91,384 persons
Total DTV Ch 31 City Grade	25,685	78,955
Only DTV Ch 31 Threshold	14,043	15,233
Only DTV Ch 31 City Grade	9,111	4,509
Only DTV Ch 31 Threshold and KENW Grade B	18,197	75,748
Only DTV Ch 31 Threshold and KENW Grade B and KENW-DT Threshold	1,853	403

Summary

A noncommercial DTV Channel 31 allotment for Roswell, New Mexico, would constitute that community’s first noncommercial DTV allotment, and would be fully spaced to all other stations, both U.S. and Mexican, except for a “paper” short-spacing to the KENW-DT, DTV Channel 32, Portales, New Mexico, allotment. However, the site would be fully spaced to the permitted



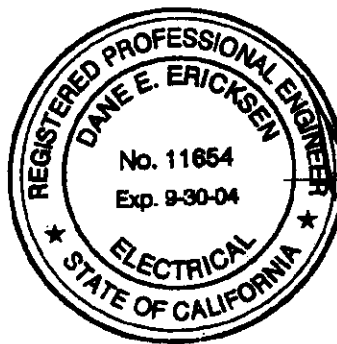
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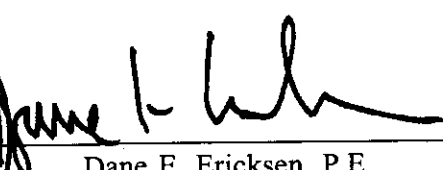
KENW-DT site. Waiver of the spacing requirement to the KENW-DT *allotment* would therefore be in the public interest, as it would not create a short-spacing to the actual KENW-DT facilities and it would allow the creation of a new noncommercial DTV allotment for Roswell.

List of Figures

In carrying out these engineering studies, the following attached figures were prepared under my direct supervision:

1. Summary of spacing conditions
2. Map showing spacing requirements for KENW-DT allotment versus the KENW-DT construction permit
3. Maps showing Mexican DTV and NTSC allocation conditions
4. City Grade coverage map
5. OET-69 style coverage study and coverage map
6. Map showing Grade B contours of other NCETV stations
7. Map showing KENW-DT coverage
8. Map showing overlapping D31, KENW, and KENW-DT coverages.




Dane E. Ericksen, P.E.

June 17, 2002



HAMMETT & EDISON, INC.
CONSULTING ENGINEERS
SAN FRANCISCO

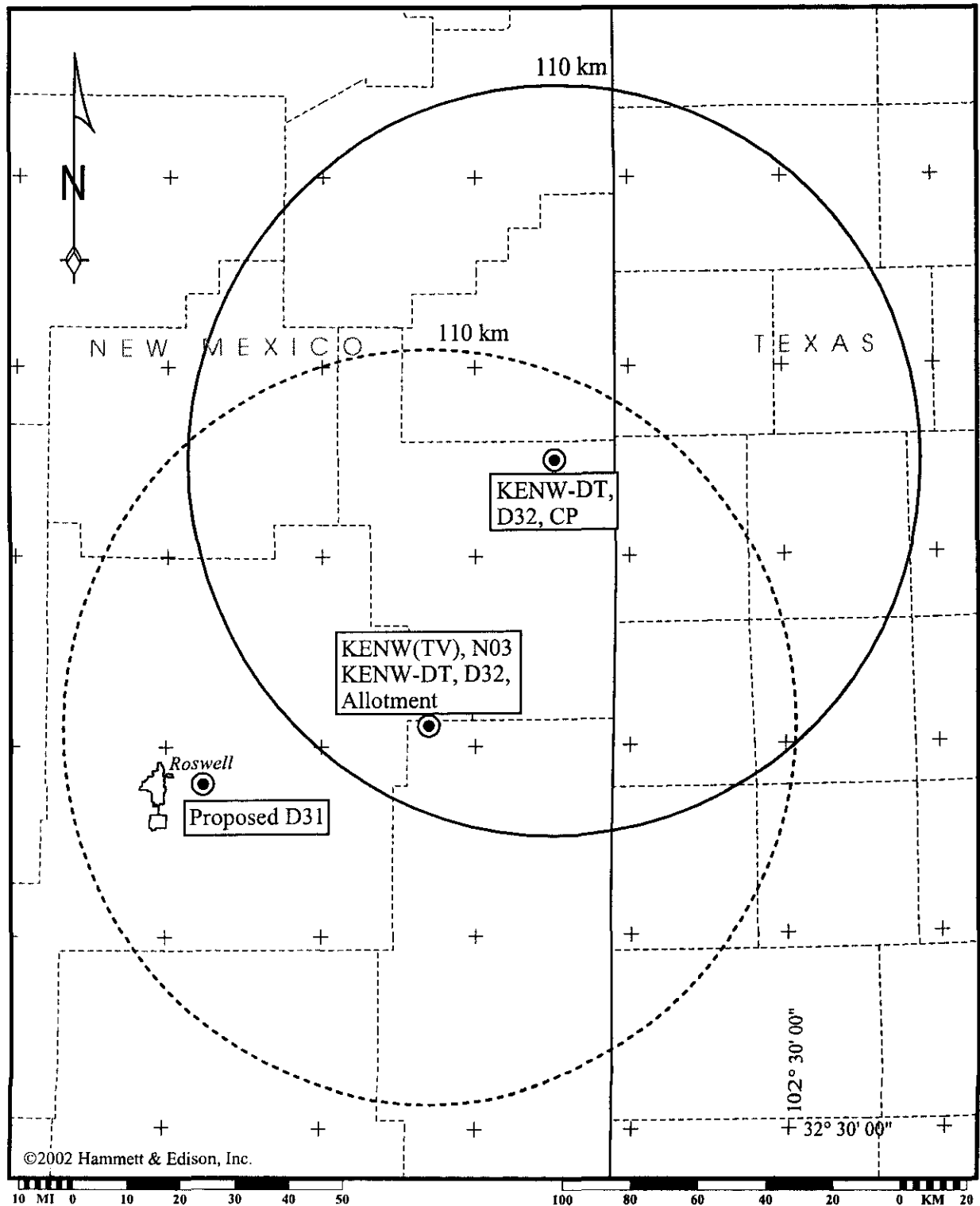
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U.S. Domestic Allocation Conditions

<u>Callsign</u>	<u>Channel</u>	<u>Status</u>	<u>City of License</u>	<u>Actual Distance</u>	<u>Required Distance</u>
KPTB	16	Lic	Lubbock, TX	238.4 km	96.6 km
KPCB	17	Lic	Snyder, TX	332.2	96.6
KNAT-TV	23	Lic	Albuquerque, NM	277.2	96.6
K24DP	24A	Lic	San Jon, NM	229.5	96.6
KRPV	27	Lic	Roswell, NM	17.5	<24.1
KAMC	28	Lic	Lubbock, TX	235.6	96.6
KHFT	29	Lic	Hobbs, NM	141.4	96.6
KAPT-LP	29A	Lic	Alamogordo, NM	154.3	96.6
KGLR-LP	30A	CP	Lubbock, TX	235.6	106.0
KOSA-DT	D31	App	Odessa, TX	240.1	223.7
K40FJ	31A	Lic	Midland, TX	272.8	244.6
KBCA	31	App	Elk City, OK	315.2	244.6
KEUS-LP	31A	Lic	San Angelo, TX	423.3	244.6
KENW-DT	D32	Allot.	Portales, NM	69.8	110.0
		CP	Portales, NM	141.6	110.0
KKGD-LP	33		Roswell, NM	13.5	<24.1
KCVP-LP	34A	Lic	Clovis, NM	157.9	96.6
KIDB-CA	35A	Lic	Sweetwater, TX	398.2	96.6
KSCE	38	Lic	El Paso, TX	264.8	96.6
KYNM-LP	39A	CP	Albuquerque, NM	276.9	96.6

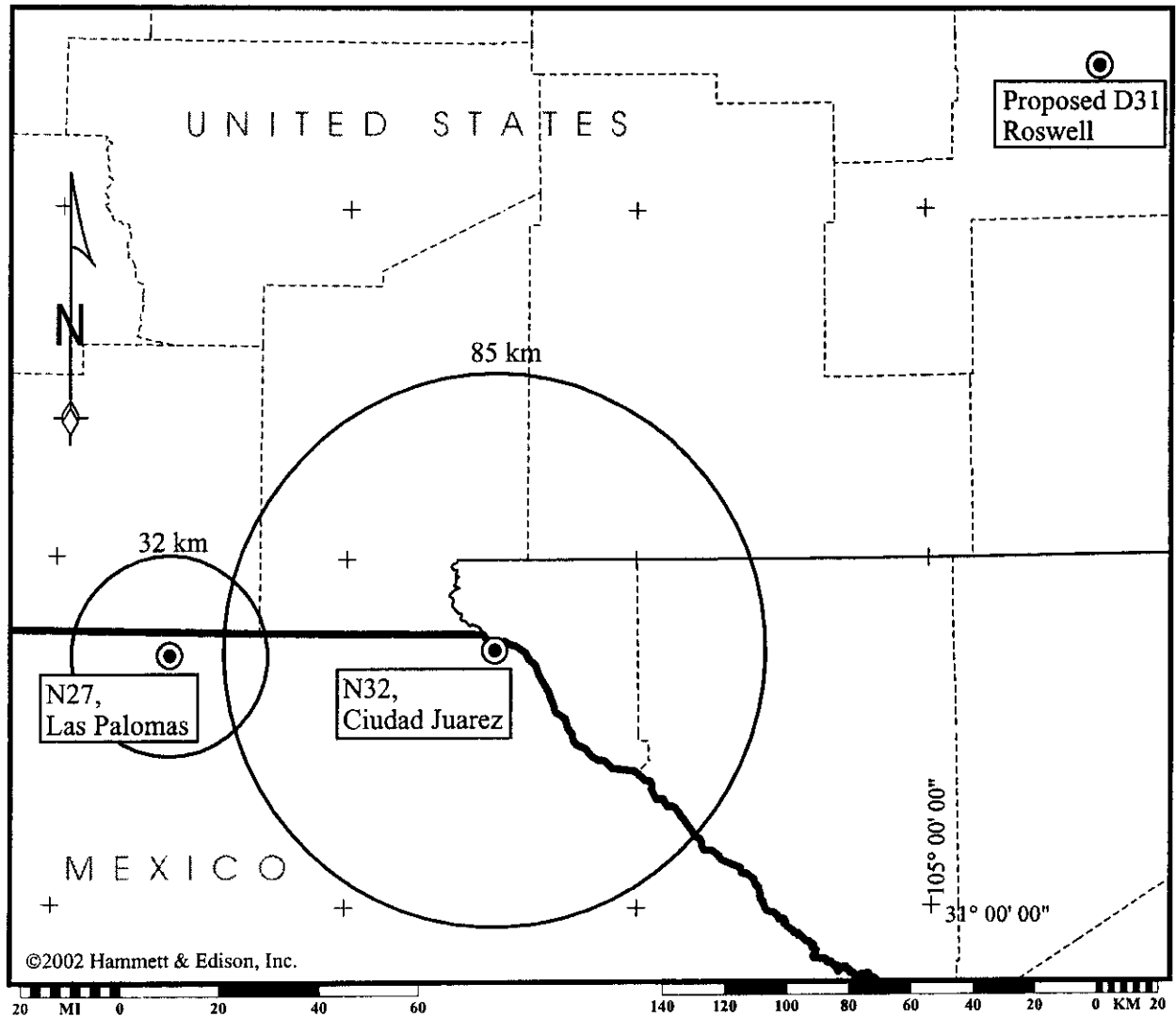
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KENW-DT, D32, Allocation Conditions



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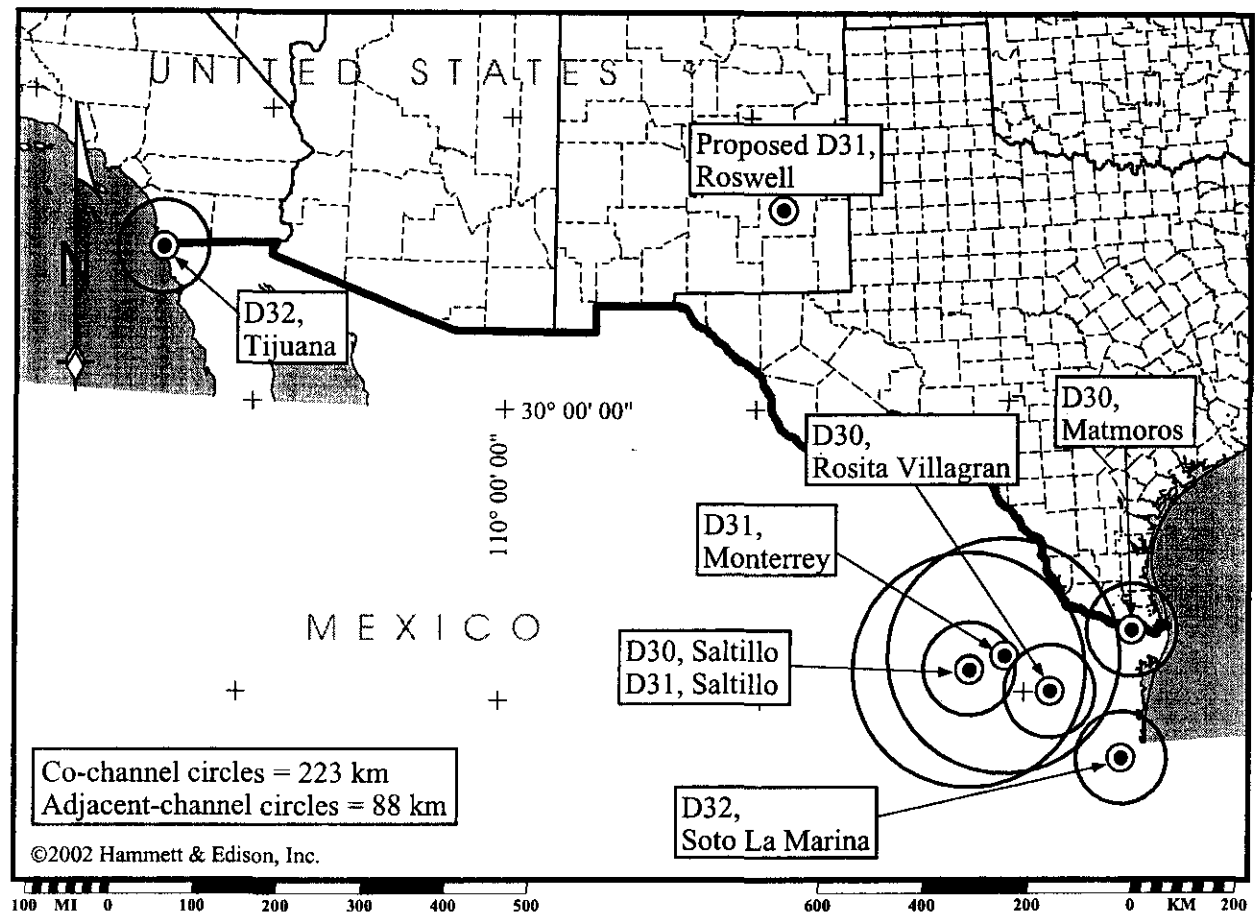
Mexican NTSC Allocation Conditions



Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 1-degree increments.

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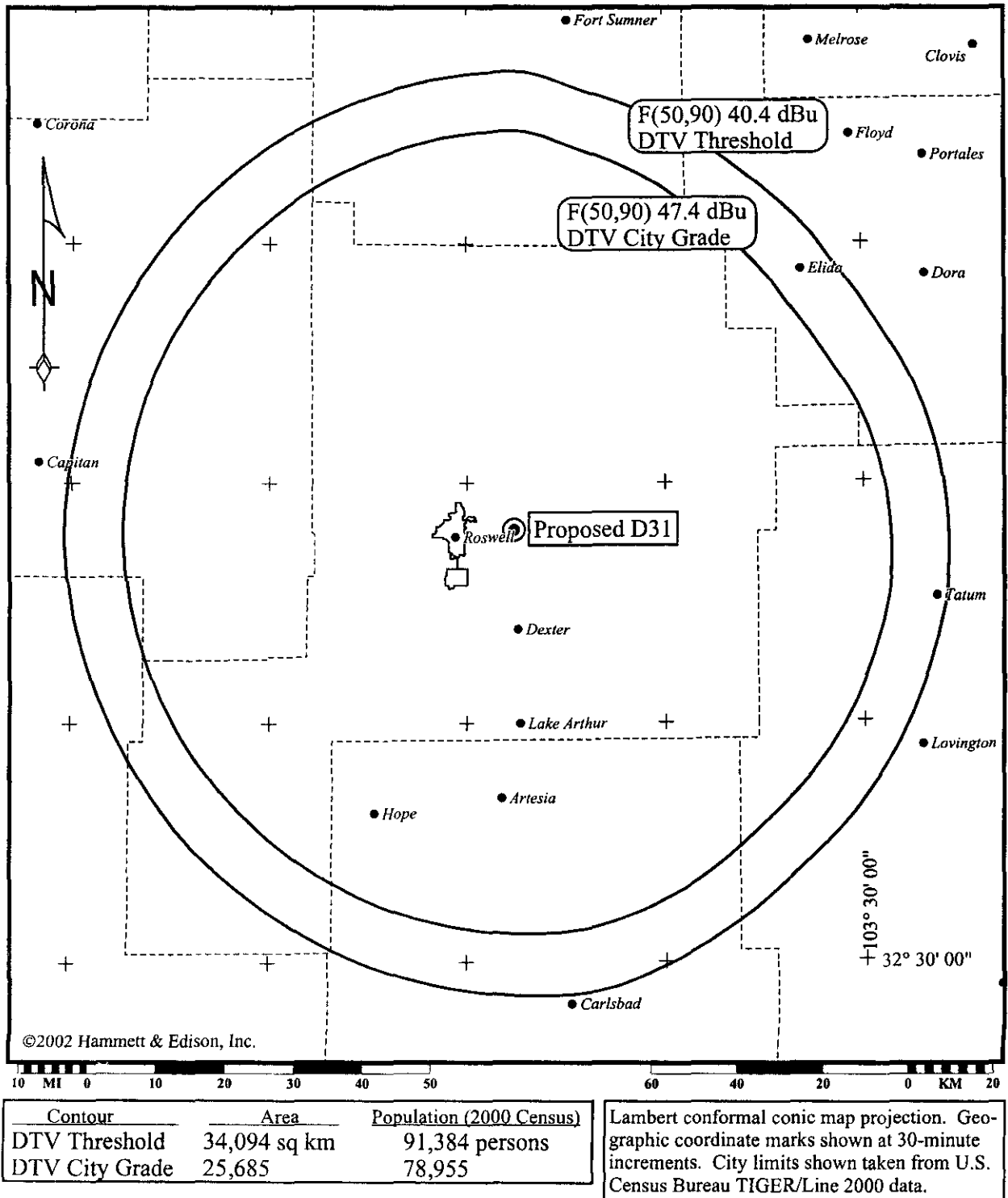
Mexican DTV Allocation Conditions



Map data taken from Sectional Aeronautical Charts, published by the National Ocean Survey. Geographic coordinate marks shown at 5-degree increments.

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FCC Contours for Proposed Allotment
1,000 kW ERP Omnidirectional
C.O.R. = 316 m AGL, 1,459 AMSL, 365 m HAAT
33° 24' 05" N, 104° 22' 45" W, NAD27



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Roswell, New Mexico**

OET-69 Coverage Study

Coverage analysis
tvcovstudy 2.3.13

Station parameters:

--Proposed DTV Allotment----

Station: Proposed D31 NCEDT Allotment
City: ROSWELL, NM
Coordinates: N 33-24-05.0
 W 104-22-45.0
Height AMSL: 1459.0 m
Maximum ERP: 1000 kW
Azimuth pattern: omnidirectional
Orientation:
Elevation pattern: OET-69 generic
Service level: 40.4 dBu

Interfering station	Total IX		Unique IX	
	Area, km2	Population	Area, km2	Population
D31 KOSADT allot ODESSA, TX	2255.6	2,929	2255.6	2,929
D32 KENW-DT CP PORTALES, NM	181.6	14	181.6	14
Service conditions	Area, km2	Population		
Noise-limited service	34200.9	77,773		
Terrain-limited service	33821.6	77,631		
Interference-free service	31384.4	74,688		
Longley-Rice errors	3684.0	919		

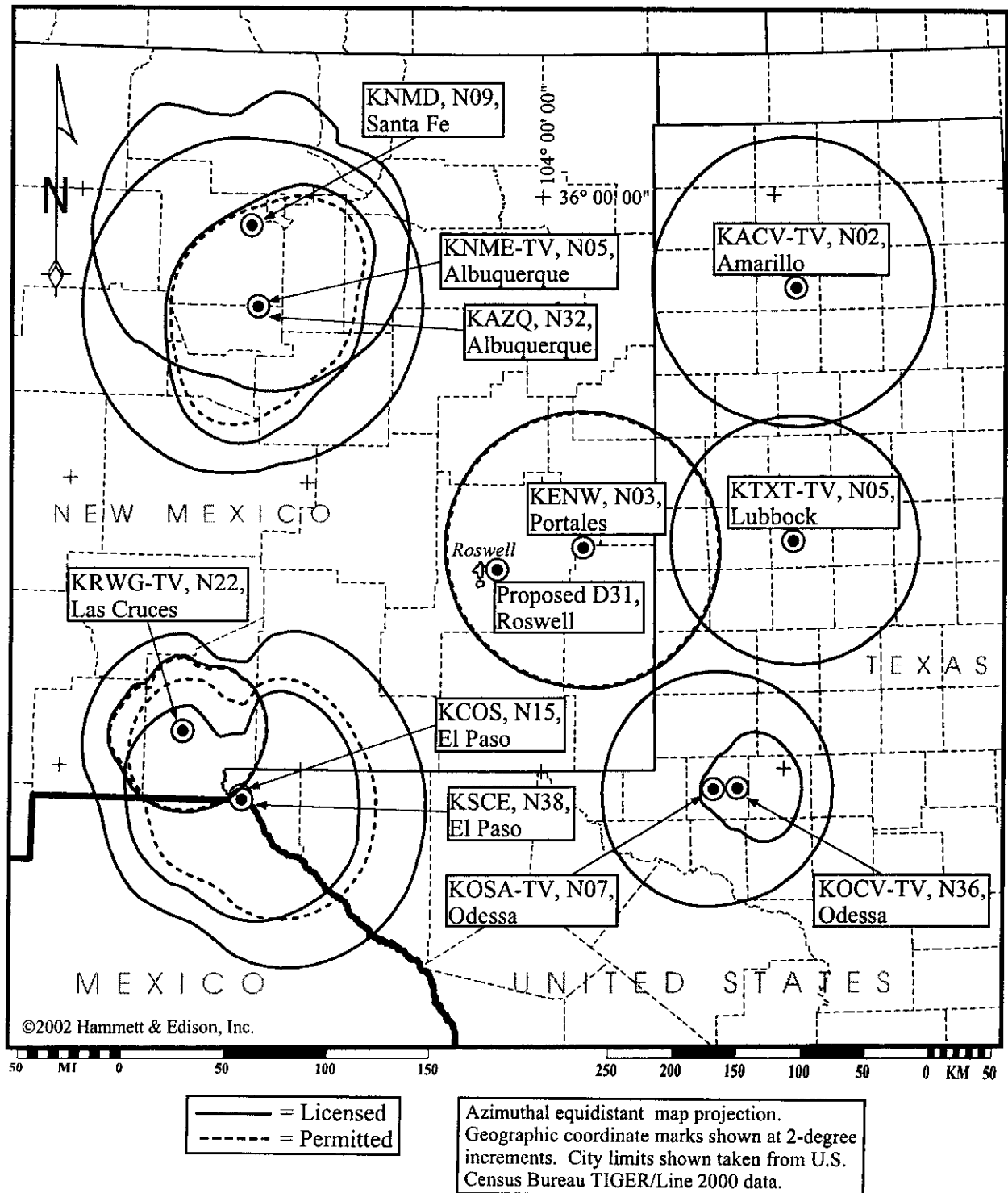
Modified station parameters:

--Modified-----	--Original-----
Station: D32 KENWDT allot	D32 KENWDT allot
City: PORTALES, NM	PORTALES, NM
Coordinates: N 34-15-08.1	N 33-33-19.0
W 103-14-20.6	W 103-39-03.0
Height AMSL: 1454.0 m	1677.0 m
Maximum ERP: 82.6 kW	1000 kW
Azimuth pattern: omnidirectional	DTV1028 (replication)
Orientation:	0.0
Elevation pattern: OET-69 generic	OET-69 generic
Service level: 40.5 dBu	40.5 dBu

Note: The results of the OET-69 algorithm are dependent on the use of computer databases, including terrain, population, and FCC engineering records. FCC Rules Section 0.434(e) specifically disclaims the accuracy of its databases, recommending the use of primary data sources (i.e., paper documents), which is not practical for DTV interference analyses. Further, while Hammett & Edison, Inc. endeavors to follow official releases and established precedents on the matter, FCC policy on DTV analysis methods is constantly changing. Thus, the results of OET-69 interference and coverage studies are subject to change and may differ from FCC results.

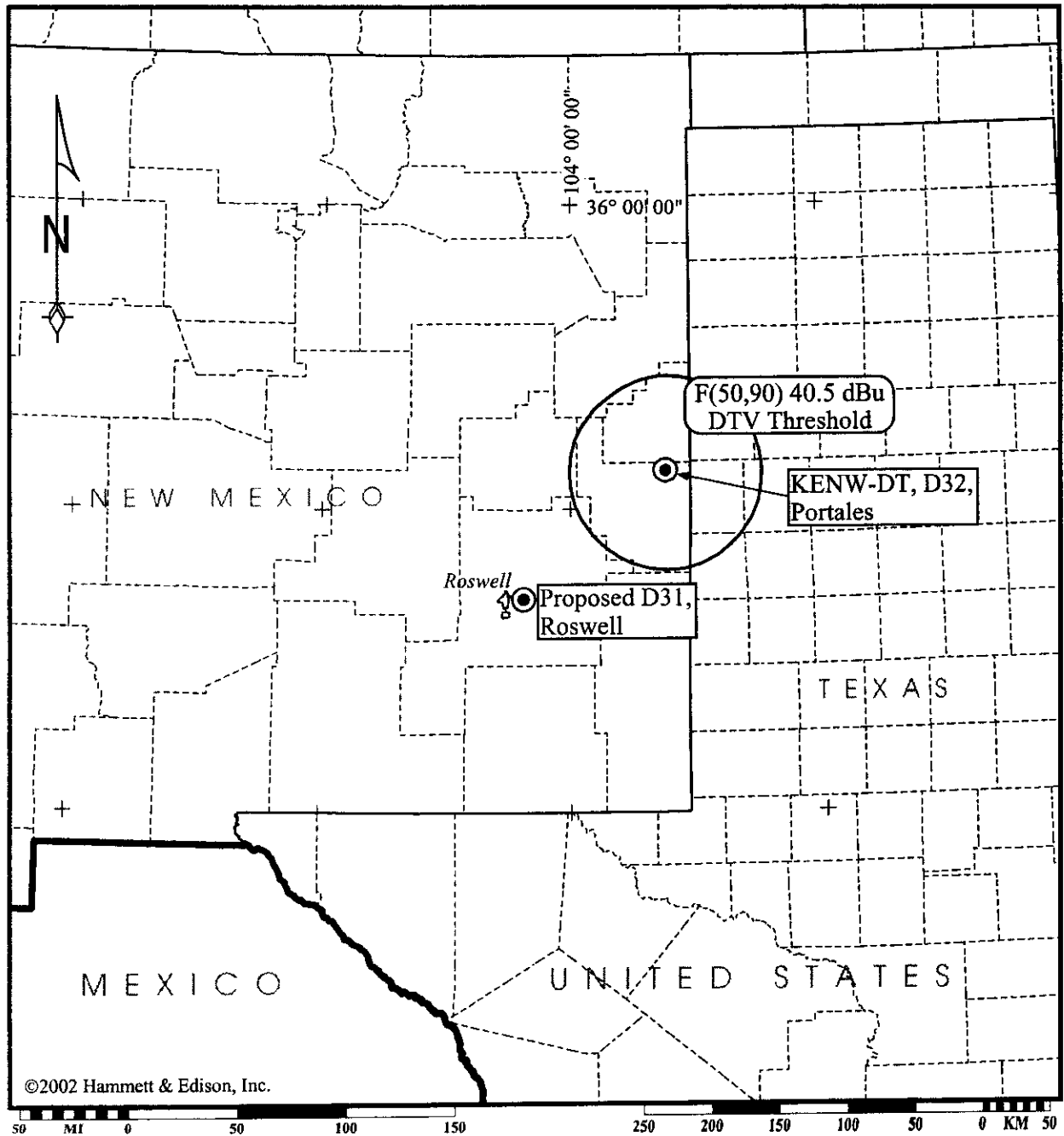
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NTSC Noncommercial Educational
Grade B TV Coverages



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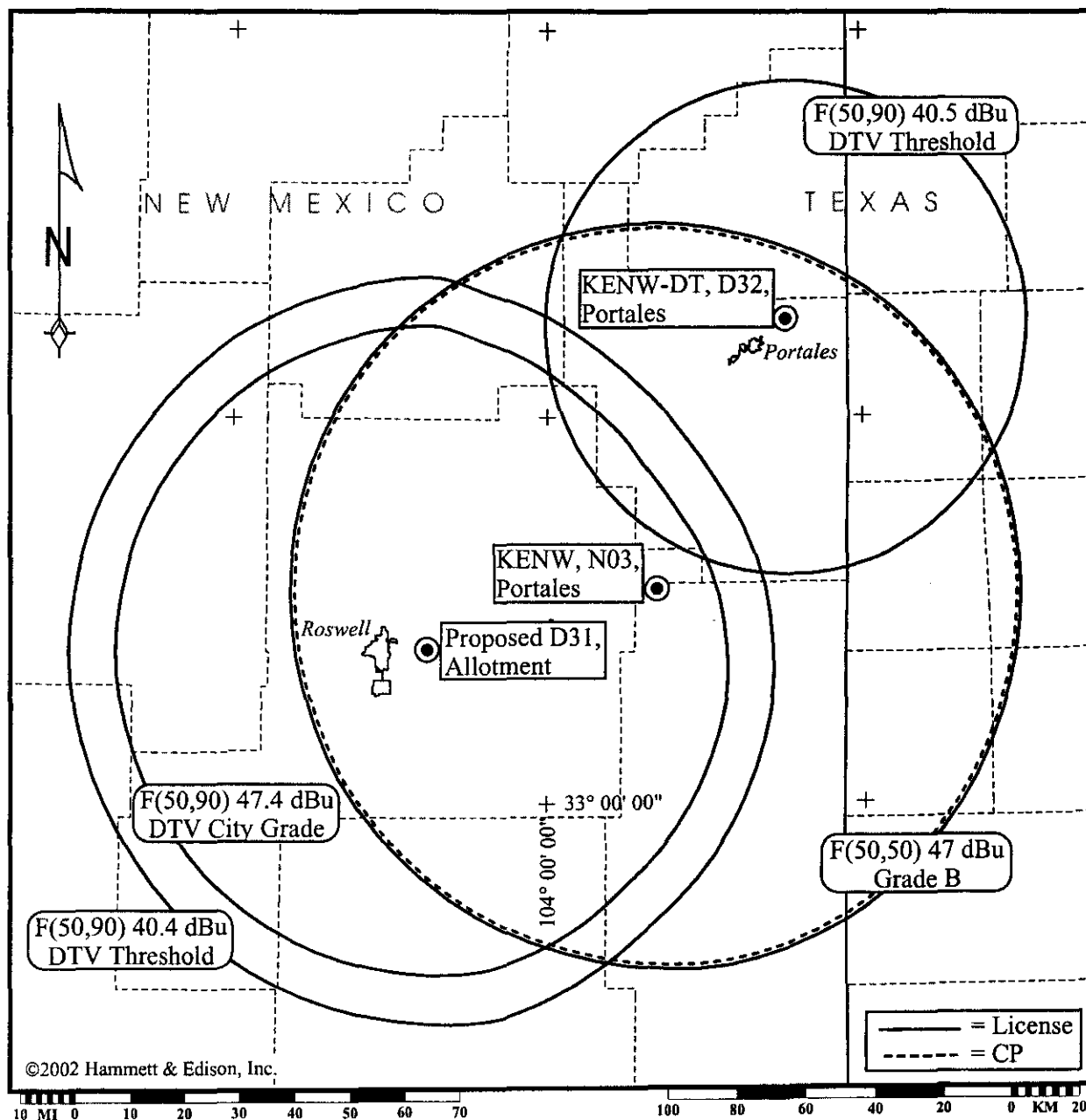
KENW-DT, DTV Channel 32,
DTV Coverage



Azimuthal equidistant map projection. Geographic coordinate marks shown at 2-degree increments. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data.

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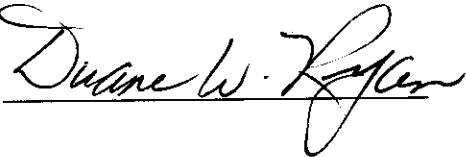
Overlap Coverages



Albers equal area map projection. Geographic coordinate marks shown at 1-degree increments. City limits shown taken from U.S. Census Bureau TIGER/Line 2000 data.



I, Duane W. Ryan, Director of Broadcasting of KENW TV, Eastern New Mexico University, hereby declare that the foregoing facts set forth in this Petition for Rulemaking to amend Section 73.622 of the Commission's Rules are true and correct to the best of my knowledge and belief. Eastern New Mexico University intends to apply for and prosecute an application for DTV Channel *31 at Roswell, New Mexico, if allotted as a reserved DTV channel.

By: 

Title: Director of Broadcasting

Date: June 24, 2002

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